

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

UNILOC 2017 LLC,

Plaintiff,

v.

GOOGLE LLC,

Defendant.

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Case Nos.2:18-CV-00491-JRG-RSP

2:18-CV-00503-JRG-RSP

DEFENDANT’S RESPONSIVE CLAIM CONSTRUCTION BRIEF

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I. INTRODUCTION

Plaintiff Uniloc 2017 LLC (“Plaintiff” or “Uniloc”) alleges that Defendant Google LLC (“Defendant” or “Google”) infringes claims 1 and 2 of U.S. Patent No. 6,473,114 (“’114 Patent”) and claims 1–9, 12, and 15 of U.S. Patent No. 9,141,489 (“’489 Patent”). Uniloc’s proposed constructions ignore the plain meaning of the terms, their context within the asserted claims, and the specification. Google respectfully requests that the Court reject Uniloc’s proposed constructions and adopt Google’s constructions, which are consistent with the intrinsic evidence.

II. LAW OF CLAIM CONSTRUCTION

In view of the Court’s familiarity with the applicable law concerning claim construction, Defendant cites pertinent cases in the context of specific disputed issues.

III. BACKGROUND OF THE TECHNOLOGY

A. U.S. Patent No. 6,473,114

The ’114 Patent is directed to “[a] videoconferencing application . . . where displayed speakers are changed dynamically based on some schema [that] employs animation effects to indicate the change.” Ex. A at Abs.¹ Further, “[w]hen a new speaker replaces an old, the new speaker’s image is gradually transitioned into the place of the old speaker’s by an animation that provides a clear cue and a visual metaphor for the event.” *Id.*

As shown in Figure 6, the method proceeds as follows: a speaker appears on the display (D1) “when the candidate speaks momentarily as shown in frame I41.” *Id.* at 4:7–9. “If the candidate speaker D1 stops speaking, his/her image shrinks and disappears.” *Id.* at 4:11–12. If, however, “the candidate speaker continues speaking beyond a predefined interval, the candidate

¹ References herein to “Ex. __” refer to exhibits identified in the Declaration of Mark Samartino in Support of Defendant Google LLC’s Responsive Claim Construction Brief, filed concurrently herewith.

speaker image D1 grows to the size of the other speakers A, B, and C” and “the candidate now pushes the old speaker B out of the frame as illustrated in frames I44–I46.” *Id.* at 4:12–18.

“When a change in the subset is required, one speaker is replaced by another” via an animation. *Id.* at 2:5–9. “Various [] alternative animations can be employed, the common theme of them being that there is a gradual transition and the transition is conspicuous.” *Id.* at 2:10–12. “The basic requirement is that the effect result in a gradual replacement of the image of the old speaker by a new speaker but in such a fashion as to be noticeable but visually agreeable.” *Id.* at 2:19–22.

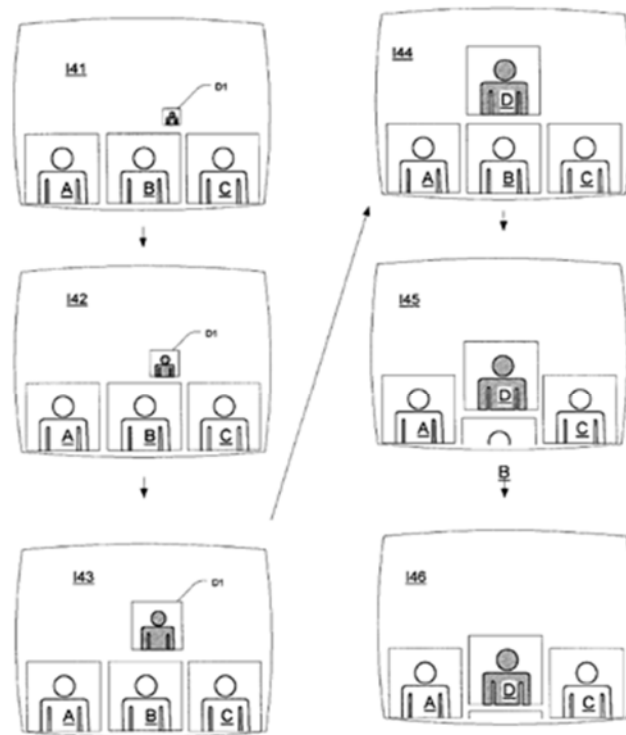


Fig. 6 B

B. U.S. Patent No. 9,141,489

The '489 Patent is generally directed to a system that detects server failures and provides for a failover procedure in response to such failures. The system relies upon server-generated fingerprints, which are sent in status messages from servers to a routing device. Ex. B at Abs.; 4:32–51, 8:47–62. Each server fingerprint uniquely identifies the generating server and is produced using machine parameters, such as a server's model number, serial number, ROM size, CPU model, CPU speed, manufacturer, network MAC address, etc. *Id.* at 5:25–6:5. The routing device actively monitors the servers using the received fingerprints and re-routes traffic to a standby server when the fingerprint of an active server: (1) is absent from the status message; or

(2) does not match the fingerprint stored in the routing device. *Id.* at Fig. 4, Abs., 8:47–62, claims 1, 9.

IV. DISPUTED CLAIM TERMS

A. U.S. Patent No. 6,473,114

1. “Replacing” (Claims 1 and 2)

Plaintiff’s Proposal	Defendant’s Proposal
[<i>No construction necessary</i>]; or, if the Court deems a construction is necessary: “changing out”	“using a noticeably gradual effect, taking the place of and taking off the screen”

Google’s construction of “replacing” has two key elements. First, it requires that the image being replaced is taken off the screen. Second, it requires a “noticeably gradual effect.” The ’114 Patent imposes both of these limitations on this claim term.

First, Google’s definition includes the plain and ordinary meaning of “replacing,” as used in the claims. Claim 1 recites a method of “indicating a change of speaker” comprising the steps of “displaying images of current conference participants” and then “displaying an image of a new conference participant responsively to an indication of speech uttered by said new conference participant.” Ex. A at claim 1. Then, the new participant is removed or replaces another participant based on its “duration” of speech. *Id.* The parties agree that “current conference participants” are distinct from the “new conference participant.” Dkt. 146 at 10. This distinction would be meaningless if no speakers were removed from the screen—because all participants would be displayed simultaneously.

The ’114 Patent confirms this plain and ordinary meaning:

When a change in the subset is required, one speaker is replaced by another in the following fashion. An animation is instantiated in which the image of the speaker that is to be replaced is *scrolled off the screen* and the new one is scrolled on as if pushing the old image *off the screen*.

Ex. A at 2:5–12 (emphasis added). This makes clear that the image being replaced is taken off of the screen “[w]hen a change in subset is required.” *Id.* While the type of animation may change, the fact that the first participant is removed does not. This is an explicit definition of “replacing” or, at least, an implied one. “[A] claim term may be clearly redefined without an explicit statement of redefinition” and “[e]ven when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents.” *Trs. of Columbia Univ. in City of N.Y. v. Symantec Corp.*, 811 F.3d 1359, 1364 (Fed. Cir. 2016) (citation omitted).

Every depiction of the “replacing” step includes removing the image being replaced from the screen entirely. *See* Ex. A at Figs. 2–6. “[W]hen a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term ‘by implication.’” *See Bell Atl. Network Servs., Inc. v. Covad Commc’ns Grp., Inc.*, 262 F.3d 1258, 1271 (Fed. Cir. 2001); *see also VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1318–19 (Fed. Cir. 2014) (holding the term “secure communication link” required a link that provided both “data security and anonymity” where no embodiment provided “data security but not anonymity”).

Extrinsic evidence supports this construction. The American Heritage Dictionary of the English Language defines “replace” as “[t]o take or fill the place of” or “[t]o be or provide a substitute for.” Ex. C. Similarly, the New Oxford American Dictionary defines “replace” as to “take the place of” and gives examples of “the light bulb needs replacing” and “the government dismissed 3,000 of its customs inspectors, replacing them with new recruits.” Ex. D. In those examples, one item is taken away and another is put in its place. This consistent with Google’s construction and the plain and ordinary meaning.

Uniloc states that Google’s construction is vague because it is unclear if “taking the place of” and “taking off the screen” are separate limitations. Dkt. 146 at 12. The use of “and” makes clear that these are separate limitations.

Second, the specification is clear that “replacing” requires a noticeably gradual effect. The Summary of the Invention states:

When a change in the subset is required, one speaker is replaced by another in the following fashion. An animation is instantiated in which the image of the speaker that is to be replaced is scrolled off the screen and the new one is scrolled on as if pushing the old image off the screen. Various other alternative animations can be employed, the common theme of them being that there is a gradual transition and the transition is conspicuous.

The basic requirement is that the effect result in a gradual replacement of the image of the old speaker by a new speaker but in such a fashion as to be noticeable but visually agreeable.

Ex. A at 2:5–22 (emphasis added). The Abstract also states, “[w]hen a new speaker replaces an old, the new speaker’s image is gradually transitioned into the place of the old speaker’s by an animation that provides a clear cue and a visual metaphor for the event.” *Id.* at Abs.

“The only meaning that matters in claim construction is the meaning in the context of the patent.” *Trs. of Columbia*, 811 F.3d at 1363. *Trustees of Columbia* is analogous to this case. In that case, the patentee defined the term “byte sequence feature” in the patent, stating twice that “it represents the machine code in an executable.” *Id.* at 1365. The court stated: “[T]hese are not simply descriptions of the preferred embodiment but are statements defining ‘byte sequence feature’” and that the “construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.” *Id.* at 1366 (citation omitted). Similarly, here the patentee defined the term “replacing” explicitly, stating, “[t]he ***basic requirement*** is that the effect result in a gradual replacement of the image . . .

in such a fashion as to be noticeable but visually agreeable.” Ex. A at 2:19–22 (emphasis added). Like in *Trustees of Columbia*, the patentee’s definition should control. “The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.” *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996).

Google’s construction is consistent with the primary goal and every embodiment of “replacing” in the ’114 Patent. This situation is analogous to the one in *VirnetX*, where the court held the term “secure communication link” to require a link that provided anonymity where every single embodiment in the patent required anonymity. *VirnetX*, 767 F.3d at 1317–18. The court stated the Background of the Invention section framed the problem, the Summary of the Invention section provided a solution, and the Detailed Description “repeatedly and consistently” used anonymity to characterize the invention. *Id.*

Here too, the Background of the Invention section of the ’114 Patent discusses “two problems” with managing the display of multiple participants: “very conspicuous” and “abrupt and . . . therefore disconcerting” image transitions. Ex. A at 1:52–60. The patentee also provides an alleged solution in the patent’s Summary of the Invention, stating, “[t]he basic requirement is that the effect result in a gradual replacement of the image of the old speaker by a new speaker but in such a fashion as to be noticeable but visually agreeable.” *Id.* at 2:19–22. Even Uniloc admits “[t]he ’114 Patent is directed to solving those problems [*i.e.*, sudden changes] by providing for noticeable changes” Dkt. 146 at 5. Every embodiment of “replacing” in the ’114 Patent likewise consistently describes the disputed term as using a gradual transition. Like in *VirnetX*, the court should adopt the construction consistent with the entire specification. *See also Bell Atl.*, 262 F.3d at 1271 (“[W]hen a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term ‘by implication.’”).

The '114 Patent also disclaims non-gradual “replacing.” Under the Background of the Invention, the patent criticized “sudden” transitions. Ex. A at 1:52–60. “Where the general summary or description of the invention describes a feature of the invention . . . and criticizes other products . . . that lack that same feature, this operates as a clear disavowal of these other products . . .” *Astrazeneca AB, Aktiebolaget Hassle, KBI-E, Inc. v. Mut. Pharm. Co.*, 384 F.3d 1333, 1340 (Fed. Cir. 2004).

Uniloc’s construction ignores the context of the claim, specification, and extrinsic evidence. The cases cited by Uniloc only confirm that terms should be construed according to the claims themselves or as required by the specification. *See Dayco Prods. v. Total Containment, Inc.*, 258 F.3d 1317, 1327 (Fed. Cir. 2001); *Vitronics*, 90 F.3d at 1584–85. The Court should adopt Google’s construction.

2. “First duration” (Claim 1)

Plaintiff’s Proposal	Defendant’s Proposal
[<i>No construction necessary</i>]; or, if the Court deems a construction is necessary: “an elapsed period of time”	“a predetermined length of time”

The parties agree that a related term, “duration,” has its plain and ordinary meaning. Dkt. 146 at 10. It appears the parties further agree that, generally, the plain and ordinary meaning of “duration” relates to a length of time. *Id.* at 12–13. The only apparent disagreement in regards to “first duration” is whether the length of time is predetermined.

Google’s construction is consistent with how the phrase is used in the claim. Claim 1 requires “removing said image of said new conference participant when said speech is of a first duration” and “replacing one of said images . . . when said speech is of a duration longer than said first duration.” Ex. A at claim 1. Both of these limitations dictate that the length of the new conference participant’s speech is compared to a first duration. It is not clear how such a

comparison could be done if the length of time was not predetermined. Uniloc's proposed construction for this term cannot be correct when read in the context of the claim. Uniloc's construction—"an elapsed period of time"—is essentially the definition of "duration," and renders the comparison of a participant's duration of speech to a "first duration" impossible.

Uniloc further states that their construction is appropriate because "out of the five examples and embodiments recited by the specification, only one utilizes a 'predefined interval' in removing an image." Dkt. 146 at 13. This is a mischaracterization. Although there are five figures depicting displays of participants, there is only one embodiment with regard to "first duration." Ex. A at Fig. 6. Thus, instead of being merely an example, it is the sole embodiment as to "first duration." It is unlikely that the patentee would define the invention to exclude a preferred (and indeed only) embodiment of this limitation. *Vitronics*, 90 F.3d at 1583 (such an interpretation "is rarely, if ever, correct and would require highly persuasive evidentiary support"). Google's construction is consistent with the only embodiment in the '114 Patent of the "first duration" limitation and the plain language of the claim, and should be adopted.

Uniloc also incorrectly states that Google's construction excludes a preferred embodiment, as described in regards to Figure 2:

The images that are ordinarily shown are a subset of the participants that are selected according to some suitable schema such as frequency of participation, title, how recently the participant spoke, etc. Because such criteria may be dynamic, that is, they may change over time, the video image of one participant must be replaced with that of another on occasion.

Ex. A at 3:4–11. Uniloc's citation to this statement is misleading. First, this example does not list duration of speech as a criteria at all, so the relevance of this statement to the claim is tenuous at best. Second, it merely states that who is displayed may change because their participation is dynamic. In other words, the participant's frequency of participation or recentness of speech may constantly change. If applied to the asserted claims, that would mean that the participant's length

of speech is dynamic; it does not mean the “first duration” is also dynamic. Even if Uniloc’s read is correct, it merely says the criteria “may be” dynamic, not that any given criteria, such as “first duration,” must be dynamic. Uniloc’s construction does not make sense when read in the context of the claim and ignores the sole embodiment of the “first duration” limitation in the specification. The cases cited by Uniloc only serve to confirm that terms should be construed according to the claims themselves or as required by the specification. *See Dayco*, 258 F.3d at 1327; *Vitronics*, 90 F.3d at 1584–85. The Court should adopt Google’s construction.

3. “Indication of speech uttered” (Claim 1)

Plaintiff’s Proposal	Defendant’s Proposal
[<i>No construction necessary</i>]; or, if the Court deems a construction is necessary: “a signal of speech”	“any momentary speech”

Google’s construction is consistent with both the term’s plain and ordinary meaning and how the term is used in the ’114 Patent. First, Claim 1 recites “displaying an image of a new conference participant responsively to an indication of speech uttered by said new conference participant.” Ex. A at claim 1. Then, the claim requires “removing” said image or “replacing” another image with said image based on the length of said speech. *Id.* This progression of steps only makes sense if a participant’s image is shown in response to speech because the next step is determined based on the length of that speech.

The specification supports this construction. This limitation is only explicitly described in relation to Figure 6: “This animation illustrates a candidate speaker appearing momentarily as he *begins speaking*. As the speech continues, the new image grows until, once the speech reaches a threshold duration, it starts to displace an old speaker.” Ex. A at 2:51–53 (emphasis added). The patent further states, “[r]eferring now to FIG. 6, a candidate speaker appears on the display . . . when the candidate *speaks momentarily* . . .” *Id.* at 4:7–9 (emphasis added). It is unlikely that

the patentee would define the invention to exclude a preferred (and indeed only) embodiment of this limitation. *Vitronics*, 90 F.3d at 1583 (stating such an interpretation “is rarely, if ever, correct and would require highly persuasive evidentiary support”). Google’s construction is consistent with the only embodiment of this limitation in the ’114 Patent, as well as the plain language of the claim, and should be adopted.

Google’s construction is also fully supported by extrinsic evidence. The American Heritage Dictionary of the English Language defines “indicate” as “[t]o state or express briefly.” Ex. C. Similarly, the New Oxford American Dictionary defines “indicate” as “admit to or state briefly.” Ex. D. Thus, extrinsic evidence supports that the “indication” in “indication of speech uttered” is brief or momentary.

Uniloc states that Google’s construction is divorced from the claim language because “‘any momentary speech’ is the speech itself, not an indication of the speech” Dkt. 146 at 14. Once again, Uniloc ignores how the phrase is used in the claim. Claim 1 requires that a participant is displayed “responsively to an indication of speech uttered” and that the participant is removed or replaces another based on the length of “said speech.” Ex. A at claim 1. This logically requires that the “indication of speech uttered” is the speech itself. Indeed, the “indication of speech” is “uttered” by the new conference participant so it is unclear how it could be anything other than speech itself. Uniloc’s construction of the phrase is incorrect because it ignores how the term is used in the claim, the specification, and extrinsic evidence and Google’s construction should be adopted.

4. “Displacing” (Claim 2)

Plaintiff’s Proposal	Defendant’s Proposal
[No construction necessary]; or, if the Court deems a construction is necessary: “taking the place of”	“using a noticeably gradual effect, taking the place of and taking off the screen”

Claim 2 discloses “[a] method as in claim 1, wherein said step of replacing includes one of displacing and contracting said image of said one of said current conference participants.” Ex. A at claim 2. Thus, “displacing” is a method of “replacing.” Accordingly, “displacing” requires a “noticeably gradual effect” and that the image being replaced is taken off of the screen for the same reasons discussed above with respect to the “replacing” limitation in Claim 1.

Google’s construction is also consistent with each use of “displacing” in the ’114 Patent. The description of Figure 6 states: “As the speech continues, the new image grows until, once the speech reaches a threshold duration, it starts to displace an old speaker.” *Id.* at 2:53–55. The description for Figure 2 discloses, “the new speaker’s image D could move upwardly from the bottom and displace the old speaker’s image B” *Id.* at 3:17–19. Finally, the description for Figure 5 describes an imaginary cylinder rotating in the new speaker’s image and rotating out the old speaker’s image, stating, “[t]he effect continues . . . until the image of the new speaker . . . completely displaces that of the old speaker” *Id.* at 3:56–4:6. As each use of “displacing” makes clear, this step both is gradual and results in the old image being removed entirely from the screen. *See id.* at Figs 2–6. “[W]hen a patentee uses a claim term throughout the entire patent specification, in a manner consistent with only a single meaning, he has defined that term ‘by implication.’” *See Bell Atl.*, 262 F.3d at 1271; *see also VirnetX*, 767 F.3d at 1319 (holding the term “secure communication link” requires a link that provided both “data security and anonymity” where not a single embodiment provided “data security but not anonymity”). Uniloc argues that its construction is correct, citing to examples in the specification describing this term. Dkt. 146 at 14. Uniloc neglects to mention that each figure depicts both that the image being replaced is removed from the screen and that the replacing step is gradual.

Uniloc states that Google’s construction is vague because it is unclear if “taking the place of” and “taking off the screen” are separate limitations. Dkt. 146 at 15. The use of “and” makes clear that these are separate limitations.

Uniloc also argues that “not all ‘gradual’ effects are noticeable.” Dkt. 146 at 15. Although this may be true, it is not relevant because Google’s construction includes “noticeably” as a modifier of “gradual effect.” Uniloc further cites to the specification, which states, “[t]o insure the animation is prominent and noticeable, a fade would not be ideal, even though such an effect is gradual and not terribly disconcerting.” Ex. A at 2:13–15. This only confirms that the patent requires a “noticeably gradual effect” as it criticizes a fade for not being “prominent and noticeable enough.” “Where the general summary or description of the invention describes a feature of the invention . . . and criticizes other products . . . that lack that same feature, this operates as a clear disavowal of these other products” *Astrazeneca*, 384 F.3d at 1340.

Uniloc’s construction is deficient because it does not take into account the use of “displacing” in the context of the claim or the specification. The cases cited by Uniloc only confirm that terms should be construed according to the claims themselves or as required by the specification. *See Dayco*, 258 F.3d at 1327; *Vitronics*, 90 F.3d at 1584–85. The Court should adopt Google’s construction.

5. “Contracting” (Claim 2)

Plaintiff’s Proposal	Defendant’s Proposal
[<i>No construction necessary</i>]; or, if the Court deems a construction is necessary: “decreasing in size”	“using a noticeably gradual effect, decreasing in size and taking off the screen”

Claim 2 discloses “[a] method as in claim 1, wherein said step of replacing includes one of displacing and contracting said image of said one of said current conference participants.” Thus, “contracting” is a method of “replacing.” Accordingly, “contracting” requires a “noticeably

gradual effect” and that the image being replaced is taken off of the screen for the same reasons discussed above with respect to the “replacing” limitation in Claim 1. Uniloc’s arguments in regards to “contracting” are nearly identical to those for “displacing.” Dkt. 146 at 16–17. Google incorporates its responses from Section IV.B.4 herein.

6. Order of steps (Claim 1)

Plaintiff’s Proposal	Defendant’s Proposal
The antecedent basis in the claim governs any ordering of steps	Claim 1 contains a list of steps that must be performed in the written order

Uniloc concedes that the antecedent basis in Claim 1 governs the ordering of the steps. Dkt. 146 at 17–18. Uniloc inexplicably argues, however, that the steps listed in Claim 1 do not need to be performed in the written order when in fact the antecedent bases in the claim and logic both dictate the opposite. Claim 1 contains the following limitations:

- A. “displaying images of current conference participants.” Ex. A at Claim 1.
- B. “displaying an image of a new conference participant responsively to an indication of speech uttered by said new conference participant.” *Id.*
- C. “removing *said image of said new conference participant* when *said speech* is of a first duration.” *Id.* (emphasis added).
- D. “replacing one of *said images of said current conference participants* with *said image of said new conference participant* when *said speech* is of a duration longer than *said first duration*.” *Id.* (emphasis added).

Uniloc argues that steps A and B may be performed in reverse order because there is no antecedent basis in step B. Dkt. 146 at 18. The parties agree, however, that current and new conference participants are distinct groups. *Id.* at 10. When a new conference participant appears as in step B, it is clear that a different subset of participants—the current participants—were displayed before that (*i.e.*, in step A). Therefore, step B is logically performed after step A.

Uniloc does not address whether steps C and D must occur in the written order, but appears to agree by implication by conceding that the antecedent basis in the claim governs the ordering of the steps. Specifically, step C must occur after steps A and B because the antecedent bases for “said image of said new conference participant” and “said speech” are located in step B. Logic also requires this ordering. An image cannot be removed until it is displayed. Further, the duration of “said speech” cannot be determined until after the participant speaks, as it does in step B. Step D must be performed after steps A and B because the antecedent basis for “said images of said current conference participants” is located in step A and the antecedent bases for “said image of said new conference participant” and “said speech” are located in step B. Logic once again requires this ordering. The claim is clear that a new participant is displayed “responsively to an indication of speech uttered,” and then one of two actions is taken based on the length of that speech—they either are removed, or replace another participant. Thus, step D must occur after steps A and B for this method to be effected.

Interestingly, Uniloc acknowledges that the claim must be performed in the written order, stating that the ’114 Patent provides a solution of “display[ing] a new speaker in addition to the current subset of participants, and then, based on criteria, replacing one of the subset of current participants with a new speaker.” Dkt. 146 at 5.

The specification consistently describes these steps as being performed in the claimed order. *VirnetX*, 767 F.3d at 1308 (holding the term “secure communication link” required anonymity where every embodiment provided anonymity). “[A] claim ‘requires an ordering of steps when the claim language, as a matter of logic or grammar, requires that the steps be performed in the order written, or the specification directly or implicitly requires’ an order of steps.” *Mformation Techs., Inc. v. Research in Motion Ltd.*, 764 F.3d 1392, 1398 (Fed. Cir. 2014)

(citation omitted). In this case, both logic and the specification require this order of the steps. Uniloc’s cited case only confirms steps may be construed to have an order “when the method steps implicitly require that they be performed in the order written.” *Interactive Gift Express, Inc. v. Compuserve Inc.*, 256 F.3d 1323, 1342–43 (Fed. Cir. 2001). The language of the claim is clear that the steps must be performed in the written order and Uniloc appears to concede as much, at least for steps C and D.

B. U.S. Patent No. 9,141,489

1. “Server Fingerprint” (Claims 3, 9, 15)

Plaintiff’s Proposal	Defendant’s Proposal
“Data that can be used to determine validity of a status message from a server”	“machine fingerprint that comprises binary data generated from a plurality of user-configurable and non-user-configurable machine parameters that is reliably reproducible by an application operating on the server, while being virtually irreproducible by any other means, and virtually impossible to guess using any systematic or brute force algorithm, that uniquely identifies the server”

As discussed below, Google’s proposal is tied directly to clear statements made by the Applicant during prosecution defining “server fingerprint,” as well as statements by the PTAB and the Examiner confirming that same definition. According to the ’489 Patent, a server fingerprint is highly-specific, based on machine-specific attributes of the server, and uniquely identifies the server. Ex. B at 4:39–5:11. No two servers have the same fingerprints, and while it is virtually impossible for one server to reproduce the fingerprint of another server, a server can reliably reproduce its own fingerprint. *Id.* at 4:34–39. For the ’489 Patent to issue, the Applicant had to confirm this claim scope, and Google’s proposed construction precisely captures that confirmation. On the other hand, Uniloc’s proposal is unbounded in the fingerprint’s composition (*i.e.*, any “data”) and focuses only on its function (though the incorrect one, *i.e.*, “used to determine the validity of the status message from a server,” which is a function outlined in separate limitations).

The Court should adopt Google’s proposal.

The ’489 Patent explains that a server fingerprint: (a) comprises binary data generated from a plurality of user-configurable and non-user-configurable machine parameters; (b) is “reliably reproducible” by an application running on the server but, while being “virtually irreproducible” by any other means, and “virtually impossible to guess using any systematic or brute force algorithm”; and (c) uniquely identifies the server.

a. A “server fingerprint” comprises binary data generated from a plurality of user-configurable and non-user-configurable machine parameters

The ’489 Patent explains that a fingerprint application running on the server “may generate the fingerprint data using a process that operates on data indicative of the server’s configuration and hardware. The fingerprint data may be generated using user-configurable machine parameters, non-user-configurable machine parameters, or both as input to a process that generates a fingerprint data file as binary data.” Ex. B at 4:58–64. The patent further states that “[t]o generate the fingerprint, a fingerprint application operating on the server may perform a system scan to determine a present configuration of the computing device,” and “[t]he application may then select the machine parameters to be used as input for generating the unique fingerprint data.” Ex. B at 5:25–32; *see also id.* at 5:33–6:5 (providing about 100 examples of specific machine parameters used to generate a server fingerprint). As explained in section IV.B.1.d.i, *infra*, the Applicant confirmed that these are in fact requirements of a server fingerprint.

b. A “server fingerprint” is reliably reproducible by the server, virtually irreproducible by any other means, and virtually impossible to guess

According to the patent, every server fingerprint must be reproducible by its own server via an application operating on that server and must not be reproducible by any other device. Indeed, the specification specifically states: “As used herein, a hardware fingerprint is data

characterized by being reliably reproducible by an application operating on a particular client machine, while being virtually irreproducible by another means, and virtually impossible to guess using any systematic or brute force algorithm.” Ex. B at 4:34–39.

c. A “server fingerprint” uniquely identifies the server

A server fingerprint must also uniquely identify the generating server. The specification states that “[i]n short, each fingerprint is a complex and unique data pattern generated from a stable system configuration of a client machine.” Ex. B at 4:39–41. The machine parameters used to generate the server fingerprint are “selected such that the resulting fingerprint data has a very high probability (e.g., greater than 99.999%) of being unique to the server. . . . The resulting fingerprint data should be highly specific, unique, reproducible and stable as a result of properly selecting the machine parameters.” Ex. B at 4:67–5:11.

d. The prosecution history confirms Google’s construction

The prosecution history confirms a clear intent to require that a “server fingerprint” have the characteristics in Google’s proposal. Indeed, to overcome prior art rejections during prosecution, the Applicant expressly defined “server fingerprint” in a manner consistent with the aforementioned portions of the specification. In fact, both the Examiner and the Patent Trial and Appeal Board (“PTAB”) accepted that very definition and expressly adopted an understanding of “server fingerprint” consistent with the specification. On this record, Google’s proposal should be adopted. *See Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1324–25 (Fed. Cir. 2003); *Bell Atl.*, 262 F.3d at 1273 (relying on prosecution history to limit claim scope because of clearly limiting statements made by the applicant to the examiner to overcome a prior art rejection).

i. The Applicant defined “server fingerprint” consistent with Google’s construction

In an Office Action dated October 14, 2011, the Examiner rejected then-pending claims

based on US 2003/0163734 to Yoshimura et al. (“*Yoshimura*”), which the Examiner disclosed “[s]toring in the routing device data representing a fingerprint of the first server” and “[d]etecting at the routing device an invalid status message from the first server by absence of the fingerprint in a status message from the first server.” Ex. E at 3–4. The Examiner rejected all of the claims as being either anticipated by *Yoshimura* or unpatentable over *Yoshimura* in view of one or more other prior art references. Ex. E at 3–15. The Examiner contended that checksums disclosed by *Yoshimura* read on the “fingerprint” recited in the claims. Ex. E at 3–4.

In an Amendment dated January 17, 2012, the Applicant responded to the rejection by arguing only that *Yoshimura* failed to disclose the “server fingerprint” recited in the claims and that the other prior art references failed to cure that deficiency in *Yoshimura*. Ex. F at 11–16. The Applicant argued that “[t]he Office Action is confusing checksums with server fingerprints. One skilled in the art would understand that a checksum of an OS environment doesn’t satisfy the definition of a fingerprint, as those terms are *defined in the specification* and in dictionaries of computer terms.” Ex. F at 12 (emphasis added). As the term “checksum” does not appear in the specification (and as the Applicant did not identify any dictionaries defining the term “fingerprint”), the Applicant’s argument amounts to a confirmation that the statements in the specification describing the “server fingerprint” are indeed definitional and intended to limit the scope of the term “fingerprint.” The Applicant reiterated its clear intent to limit the definition of “server fingerprint” by declaring that:

a “server fingerprint” *is* a machine fingerprint that comprises binary data generated from a plurality of user-configurable and non-user-configurable machine parameters. Multiple machine parameters that are stored on the server are selected by the fingerprint generating program, and from these many parameters, a highly specific, unique, reproducible and stable fingerprint is generated that uniquely identifies the server. *See* U.S. Application Pub. 2011/0010560 (“*Etchegoyen*”) at pars. 0023-0027.

Whereas *Yoshimura*’s checksums represent the size of software stored in server

memory, the server fingerprint uniquely identifies the server itself.

Ex. F at 12–13 (emphasis added). Notably, during prosecution, the Applicant did not state that a server fingerprint “may be” a machine fingerprint comprising binary data generated from user-configurable and non-user-configurable machine parameters (language in the specification that Uniloc mistakenly argues gives rise to alternative methods for generating a fingerprint). *See* Dkt. 134 at 23. By contrast, during prosecution, the Applicant’s use of “*is*” clearly and unmistakably confirms that these are requirements of “a ‘server fingerprint.’” Ex. F at 12 (emphasis added); *see Omega Eng’g*, 334 F.3d at 1325–26 (disclaimer occurs as a result of clear and unmistakable statements made during prosecution).

In an Office Action dated February 9, 2012, the Examiner again rejected the claims, relying on *Yoshimura*. Ex. G at 3–17. On July 9, 2012, the Applicant appealed. In its appeal brief, the Applicant again argued that *Yoshimura* did not teach the recited “fingerprint,” explaining that “[i]t is clear from Applicant’s specification that a fingerprint serves to identify the server. ‘The machine fingerprint positively identifies [the server as] the source of the status message.’ Specification at [0023]” (*i.e.*, ’489 Patent, col. 4:32–51). Ex. H at 12. A fingerprint therefore must uniquely identify the server in connection with a status message.

ii. The Patent Office defined “server fingerprint” consistent with Google’s construction

In a decision dated June 22, 2015, the PTAB determined that it could not sustain the Examiner’s rejections based on *Yoshimura*. The PTAB explained that “*Appellants define ‘fingerprint’* (Spec. ¶ 21 (‘a hardware fingerprint is data characterized by being reliably reproducible by an application operating on a particular client machine, while being virtually irreproducible by any other means, and virtually impossible to guess using any systematic or brute force algorithm.’))” and held that there was no basis for the Examiner’s rejection “in view of this

definition of a fingerprint.” Ex. I at 4 (emphasis added); *see also* Ex. B at 4:32–51.

On June 26, 2015, the Examiner issued a notice of allowance, echoing the PTAB’s explanation regarding the Applicant’s definition of a fingerprint:

“fingerprint” is defined in the specification in ¶ 21 [*i.e.*, ’489 Patent, col. 4:32–51]: “As used herein, a hardware fingerprint is data characterized by being reliably reproducible by an application operating on a particular client machine, while being virtually irreproducible by any other means, and virtually impossible to guess using any systematic or brute force algorithm. In short, each fingerprint is a complex and unique data pattern generated from a stable system configuration of a particular client machine.”

Ex. J, Notice of Allowability at 2 (emphasis in original). The Examiner emphasized that his reason for allowance was rooted in the Applicant’s definition of “fingerprint.” *Id.* (“In summary, the Board determine[d] that the data defined by the ‘fingerprint’ as defined by ‘hardware fingerprint’ (of Applicant’s ¶ 21) is not analogous to the checksum of Yoshimura”).

Statements by the PTAB and the Examiner carry significant weight in a claim construction analysis and should be dispositive here. *See Arendi S.A.R.L. v. Google LLC*, 882 F.3d 1132, 1136 (Fed. Cir. 2018) (“the examiner’s Reasons for Allowance made ‘clear that the examiner and the applicant understood’ . . . what the invention required”)); *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1347 (Fed. Cir. 2005) (“Statements about a claim term made by an examiner during prosecution of an application may be evidence of how one of skill in the art understood the term at the time the application was filed.”); *Nagravision SA v. Comcast Cable Commc’ns LLC*, No. 2:16-CV-1362-JRG, 2017 WL 5257009, at *7 (E.D. Tex. Nov. 13, 2017) (“This interpretation by the examiner is of significant weight in the present case.”).

2. “Fingerprint Of The [First/Second] Server” (Claims 1, 3)

Plaintiff’s Proposal	Defendant’s Proposal
“Data that can be used to determine validity of a status message from a server”	“server fingerprint” of the [first/second] server

The parties do not dispute that the constructions of these terms ultimately turn on the

construction of “server fingerprint” discussed above. Indeed, Google references its construction of “server fingerprint” in its constructions of both of these terms and highlights that the fingerprints for the first and second servers are different, while Uniloc’s constructions of the two terms are identical to its construction of “server fingerprint.”

3. “Data Representing A Fingerprint Of The First Server” (Claim 1)

Plaintiff’s Proposal	Defendant’s Proposal
“Data that can be used to determine validity of a status message from a server”	“Data amounting to a fingerprint of the first server”

Claim 1 recites, *inter alia*, “storing in the routing device data representing a fingerprint of the first server.” The ’489 Patent does not describe any data separate from the fingerprint itself that can “represent” a fingerprint of the first server. Uniloc confirms as much given that its constructions for all the “fingerprint” terms are identical. Dkt. 134 at 22–24. Accordingly, the claim requirement that “data representing a fingerprint of the first server” be stored in the routing device requires that the routing device store the fingerprint itself.²

4. “Server” (Claims 1–6, 8, 9, 12, 15)

Plaintiff’s Proposal	Defendant’s Proposal
“computer-related entity, either hardware, firmware, a combination of hardware and software, software, or software in execution, that provides services to other components”	“machine or device in a network that is used to provide services to other components in the network”

Every claim of the ’489 Patent is directed to a failover system or procedure for “servers.” The core of the dispute is whether, as Google contends, those servers are machines or

² To be sure, during prosecution, the Applicant confirmed that this claim element requires that a server fingerprint be stored in the routing device. Ex. F at 11–12. More specifically, the Applicant argued that “*Yoshimura* fails to anticipate all elements of claim 1 because . . . *Yoshimura* doesn’t teach storing a server’s fingerprint in the routing device.” Ex. F at 12. Accordingly, the Court should adopt Google’s construction and interpret this claim element to require that “data representing a fingerprint of the first server” amounts to, or *is*, a fingerprint of the first server that is stored in the routing device.

devices in a network, or whether, as Uniloc argues, the term should be broadened to reach any “computer-related entity” including either only “hardware”; only “firmware”; “hardware” plus “software”; only “software”; or just “software in execution.”

a. The intrinsic record confirms that the claimed server from which a fingerprint is generated is a machine or device

At the heart of Google’s proposed construction is the concept that the claimed “server” in the failover system must be a machine or device. Every asserted claim requires a fingerprint of a “server,” where the failover process is either triggered by (1) the absence of a server fingerprint in a status message (*see* claim 1); or (2) a mismatch resulting from a comparison between the expected server fingerprint stored in a routing device and the server fingerprint received in the status message (*see* claim 9). The patent explains that whenever a server fingerprint is used in the failover procedure, that server fingerprint is derived or generated from hardware parameters of the machine or device. Indeed, the specification explains that when “keep-alive signals from the primary or second servers” include a “hardware fingerprint,” that fingerprint “is a complex and unique data pattern generated from a stable system configuration of a particular client *machine*” used to “confirm[] [the] operational status of the originating server.” Ex. B at 4:32–44 (emphasis added). The Parties agree that the client machine or device’s system configurations are its machine parameters (Dkt. 115), which include things such as the “machine model; machine serial number; machine copyright; machine ROM size, machine UUID, and machine service tag . . . CPU ID, CPU model, CPU details, CPU actual speed, CPU family, CPU manufacturer; CPU voltage; and CPU external clock . . .” Ex. B at 5:25–6:16. Construing “server” as a machine or device is rooted in this premise and consistent with the specification’s use of the term. *See Wi-Lan USA, Inc. v. Apple Inc.*, 830 F.3d 1374, 1382 (Fed. Cir. 2016) (“Consistent use of the term in a particular way in the specification can inform the proper construction of that term.”).

The '489 Patent's prosecution history confirms that the claimed server is limited to a machine or device. In response to a rejection under 35 U.S.C. § 101, the Applicant confirmed that the claimed invention, and in particular the "server," is constrained to hardware:

To determine § 101 eligibility for claims 1-8, we need only apply the "machine" part of the machine-or-transformation test to claim 1, and ask: Is the claim tied to a particular machine?

The answer is clearly Yes. Claim 1 recites various hardware components such as "computer system", "routing device" and "server". Having passed the machine or transformation test, it is irrelevant to the § 101 inquiry whether the invention recites steps that may be implemented in software, because those steps are tied to a particular machine.

Ex. F at 11 (emphasis in original); *see also* Ex. H at 10–11 (Applicant's appeal brief to the PTO distinguishing *Yoshimura* from the claimed invention because *Yoshimura's* techniques were not applicable to "***physical hardware devices as complex as servers.***" (emphasis added)). As the Federal Circuit has instructed, "[t]he public notice function of a patent and its prosecution history requires that a patentee be held to what he declares during the prosecution of his patent." *Springs Window Fashions LP v. Novo Indus., L.P.*, 323 F.3d 989, 995 (Fed. Cir. 2003); *see also UShip Intellectual Properties v. U.S.*, 714 F.3d 1311, 1315 (Fed. Cir. 2013) ("We hold that a patent applicant's response to a restriction requirement may be used to interpret claim terms or as a source of disclaimer."); *North Am. Container, Inc. v. Plastipak Packaging, Inc.*, 415 F.3d 1335, 1345–46 (Fed. Cir. 2005) (excluding from claim scope certain embodiments based on prosecution history disclaimer).

b. Google's proposed construction is consistent with the understanding of in the art at the time of invention

Google's proposed construction of "server" is also consistent with the understanding of an ordinary skilled artisan at the time of invention. Then, a server was understood as "a computer in a network that is used to provide services . . . to other computers in the network," where a computer

is a “machine designed to store and process data” or “a programmable electronic device that can store, retrieve, and process data.” *See* Ex. K at 237, 1070; Ex. L at 72, 315. Dictionaries and treatises are often useful in claim construction, particularly if they help the court to better understand the way in which one of skill in the art might use the claim terms. *See Starhome GmbH v. AT&T Mobility LLC*, 743 F.3d 849, 856 (Fed. Cir. 2014).

c. Uniloc’s expansive proposed construction is improper and should be rejected

Uniloc improperly seeks to adopt a construction that expands the scope of the claimed server, departs from the alleged invention, and is inconsistent with the specification and file history. *See Myspace, Inc. v. GraphOn Corp.*, 672 F.3d 1250, 1256 (Fed. Cir. 2012) (rejecting a construction that was inconsistent with the scope given to the term in the specification). Moreover, Uniloc’s limited citations to the specification and untimely dictionary definitions are inconsistent with the Applicant’s clear and unmistakable limiting statements made during prosecution.³ *See Ruckus Wireless, Inc. v. Innovative Wireless Sols., LLC*, 824 F.3d 999, 1003 (Fed. Cir. 2016) (“Legal error arises when a court relies on extrinsic evidence that contradicts the intrinsic record.”).

**5. “First Server” (Claim 1–6, 9, 15) /
“Second Server” (Claims 1, 3, 5, 9, 12, 15)**

Plaintiff’s Proposal	Defendant’s Proposal
No separate construction needed from “server”; plain and ordinary meaning	first server = “active server”; second server = “standby server”

There is no dispute that the words “first” and “second” are intended to distinguish among different servers. Dkt. 134 at 19–20. But, the patent ascribes a particular purpose for that

³ Uniloc’s citations to dictionary definitions – identified for the first time in its opening brief to support its affirmative construction (Dkt. 134 at 19) – are untimely and improper under the local rules because Uniloc never identified any such extrinsic evidence in its P.R. 4-2 disclosure (Ex. M) or the P.R. 4-3 joint claim construction statement (Dkt. 115-2). Accordingly, the Court should strike such evidence and the arguments it is alleged to support.

distinction that is not captured in the plain and ordinary meaning that Uniloc is endorsing. Indeed, to effect the failover process as claimed, the '489 Patent plainly envisions a hierarchy between the servers where the standby server is to back-up the active server in case the latter fails. *See* Ex. B, claim 1 (“... routing traffic from a routing device to a first server; ... routing traffic from the routing device to a second server in response to detecting the invalid status message from the first server”), 1:56–2:8 (“The present technology provides for automatic failover in systems having at least one primary (active) and at least one secondary (stand-by) server . . .”), 2:19–28 (“In response to detecting failure of the primary server, each routing appliance switches all traffic to the secondary server which assumes the role of the primary server.”). In fact, the patent explains that the first server is the active server that receives traffic from the routing device, while the second server remains idle in a standby role without receiving any traffic until and unless the first or active server fails. *Id.* at Fig. 1 (items 102 and 104), Fig. 2 (items 202, 206), Fig. 4 (items 402 (“configure active and standby servers”), 410 (“monitor status of active server”)), 3:36–40 (“... a first server 102 and a second server 104, in an operational state where server 102 is designated active or primary server and server 104 is the standby or secondary server.”), 3:51–52 (referring to first server 102 as the “active server 102”), 4:9–11 (referring to second server 104 as the “standby server 104”). Designating the first and second servers as active and stand-by servers, respectively, is precisely how the Applicant summarized his invention during prosecution. Ex. H at 5 (“V. SUMMARY OF CLAIMED SUBJECT MATTER . . . Each routing appliance actively monitors the operational state of the active server and the stand-by server by tracking received keep-alive signals from each server. . . . In response to detecting failure of the active server, each routing appliance switches all traffic to the stand-by server”); *id.* at 6 (equating “first server” with “active server 102”).

6. “Routing Device” (Claims 1–5, 8, 9, 12, 15)

Plaintiff’s Proposal	Defendant’s Proposal
“component that directs traffic”	“hardware component that directs traffic and actively monitors the first and second servers”

The parties agree that the claimed “routing device” is a component that directs traffic. But they dispute whether that component is a “hardware component” that also actively monitors the first and second servers in the system. The intrinsic record supports such requirements.

With respect to the routing device as a “hardware component,” the parties do not dispute that, first, the routing device is a component and, second, the ’489 Patent states that a “component” may refer to any computer-related entity, either hardware, firmware, software, or some combination thereof. Ex. B at 9:4–11. Nevertheless, during prosecution, the Applicant unequivocally limited the scope of “routing device” to a “**hardware** component.” See Ex. F at 11 (“Claim 1 recites various **hardware components** such as ‘computer system’, ‘**routing device**’ and ‘server’.”) (emphasis added). This clear disclaimer excludes non-hardware components from the scope of the term. See *Uship Intellectual Props.*, 714 F.3d at 1315; *North Am. Container*, 415 F.3d at 1345–46. Uniloc’s only argument against this is based on untimely extrinsic evidence that is inconsistent with the intrinsic record.⁴ See *Ruckus Wireless*, 824 F.3d at 1003.

Regarding the requirement that the routing device actively monitor the first and second server, the claim language itself substantiates that limitation. The failover system recited in

⁴ Similar to Uniloc’s improper reliance on dictionary definitions for “server,” Uniloc first identified the dictionary definitions cited in support of its proposed constructions for “routing device” in its opening brief (Dkt. 134 at 21). The Court should therefore strike them. Google, however, properly disclosed its extrinsic dictionary definitions pursuant to P.R. 4-2 and 4-3. Those definitions are consistent with Google’s proposed construction of routing device as a hardware component. In particular, at the time of invention, a device was understood to be “any computer peripheral or hardware element that can send or receive data,” such as a “router.” Ex. N at 75; see also Ex. O at 107 (“any hardware component or peripheral . . . that can receive and/or send data.”) Ex. P at 98 (“a small useful machine or piece of equipment”); *Starhome*, 743 F.3d at 856.

independent claim 9, for example, is implemented by a “routing device configured”:

- “to compare the server fingerprint of a status message with a server fingerprint stored on the routing device; and”
- “to change the primary server to another of the first and second servers in response to a comparison of the primary server fingerprint yielding a mismatch prior to the change.”

According to this claim language, the routing device determines which server should be the primary, active server by comparing the “server fingerprints” in status messages received “from the first and second servers.” The ’489 Patent explains that such functionality amounts to active monitoring by the routing device of the servers in the network:

*The present technology provides for automatic failover in systems having at least one primary (active) and at least one secondary (stand-by) server, and at least one (typically two or more) **routing appliance** routing traffic to the primary and secondary servers.*

...

Each routing appliance actively monitors the operational state of the currently designated primary server and the secondary server, using keep-alive signals.

...

In response to detecting failure of the primary server, each routing appliance switches all traffic to the secondary server, which assumes the role of the primary server.

Ex. B at 1:56–2:38 (emphasis added); *see also* Ex. B at 6:64–8:62 (“Each routing device and the standby server monitor current status of the active server by receiving and [sic] status messages and detecting when the status message stream is interrupted.”), Fig. 4 (item 410 (“monitor status of active server”)).

During prosecution, the Applicant confirmed to the PTAB that the routing device must actively monitor the first and second servers:

*In accordance with the present invention (“Etchegoyen”), automatic failover in systems with mirrored active and stand-by servers is improved by including hardware fingerprints of the servers in keep-alive (or heartbeat) messages to identify and authenticate the server sending each keep-alive message. The active server generates and transmits the keep-alive messages to both routing appliances and the stand-by server. **Each routing appliance actively monitors the operational state of the active server and the stand-by server by tracking received keep-alive signals from each server.***

Ex. H at 5 (emphasis added). The Applicant’s invocation of the present invention or present technology in the intrinsic record informs and limits the term’s meaning, particularly where that meaning is further corroborated by the Applicant during prosecution. *See Verizon Servs. Corp., v. Vonage Holdings Corp.*, 503 F.3d 1295, 1308 (Fed. Cir. 2007) (“When a patent thus describes the features of the ‘present invention’ as a whole, this description limits the scope of the invention.”); *Fenner Invs., LTD. v. Cellco P’ship*, 778 F.3d 1320, 1323 (Fed. Cir. 2015) (adopting construction consistent with statements made in the prosecution history).

7. “A Second Routing Device” (Claim 15)

Plaintiff’s Proposal	Defendant’s Proposal
Plain and ordinary meaning	“a routing device that is separate and distinct from a first “routing device”

Claim 15 adds a “second” routing device to the system of claim 9, which already recites a first routing device. It is a basic tenet of claim construction that “[w]here a claim lists elements separately, ‘the clear implication of the claim language’ is that those elements are ‘distinct component[s]’ of the patented invention.” *Becton, Dickinson & Co. v. Tyco Healthcare Grp., LP*, 616 F.3d 1249, 1254 (Fed. Cir. 2010); *see also Engel Indus., Inc. v. Lockformer Co.*, 96 F.3d 1398, 1404–05 (Fed. Cir. 1996) (holding that where a claim provides for two separate elements, such as a “second portion” and a “return portion,” the two elements “logically cannot be one and the same”). Indeed, the specification consistently describes two or more routing appliances or devices as separate and distinct from each other. *See* Ex. B, Fig. 1 (items 114 (“Appliance 01”), 116 (“Appliance 02”)), Fig. 2 (items 210, 212), Fig. 3 (items 310, 312), 3:55–4:2.

8. “Status Message” (Claims 1–4, 8, 9, 12, 15) / “Status Signal” (Claim 4)

Plaintiff’s Proposal	Defendant’s Proposal
“Message that indicates the state of the sender”	“heartbeat or keep-alive [message / signal] containing a data structure reserved for a server fingerprint”

The independent claims require that the routing device detects a server failure by one of two ways. First, according to claim 1, the routing device detects a server failure when no server fingerprint is sent within a status message. In other words, the routing device of claim 1 only detects a failure when it receives a status message that lacks a fingerprint where a fingerprint is expected. Second, according to claim 9, a routing device detects a server failure when it receives a status message with a fingerprint that does not match a fingerprint stored on the routing device. In other words, the routing device of claim 9 only detects a failure when it receives a status message that includes an incorrect fingerprint. It follows that, in both instances, a status message (or status signal) must be *capable* of containing a server fingerprint (*i.e.*, must contain a data structure reserved for a fingerprint). This understanding is further consistent with the specification, which confirms that a status message may also contain data structures reserved for other types of data, such as a header or a time stamp. Ex. B at 4:41–51. Uniloc’s proposed construction is misplaced as it ignores the composition of the message or signal and informs only its utility, *i.e.*, indicating health or failure, which is set forth by other claim language.

9. “Detecting At The Routing Device An Invalid Status Message From The [First/Second] Server By Absence Of The [First/Second] Server Fingerprint In A Status Message From The [First/Second] Server” (claims 1, 3) / “Invalid Status Message” (claims 1, 3, 4)

Term	Plaintiff’s Proposal	Defendant’s Construction
“detecting at the routing device an invalid status message from the [first/second] server by absence of the [first/second] server fingerprint in a status message from the [first/second] server”	Plain and ordinary meaning	“determining, at the routing device, that a failure has occurred because the fingerprint that is expected in the status message from the [first/second] server is missing”
“invalid status message”	Plain and ordinary meaning	“‘status message’ indicating a failure”

The claims recite “detecting at the routing device an invalid status message” from a server and routing traffic to another server “in response to detecting the invalid status

message.” Accordingly, the routing device must affirmatively detect a status message and determine that it is invalid (*i.e.*, the fingerprint that is expected in the status message from the server is missing), prior to performing a failover procedure (*i.e.*, routing traffic to another server). Indeed, claim 1 is not directed to a process in which a routing device does not detect *any* status message, but nonetheless performs a failover procedure. Ex. B at claim 1, 8:47–62. Google’s construction is necessary to make clear that the claims require that the routing device detect an invalid status message whereby an expected fingerprint is missing from that message before performing a failover procedure. Uniloc’s failure to propose a construction where a potential dispute exists is legally improper. *See O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362–1363 (Fed. Cir. 2008).

10. “First Application...” / “Second Application...” (claim 9)

Term	Plaintiff’s Proposal	Defendant’s Proposal
“first application for serving data to multiple clients”	Plain and ordinary meaning	“self-contained computer program for serving data to multiple clients”
“second application for generating periodic status messages”	Plain and ordinary meaning	“self-contained computer program, different from the first application, for generating periodic status messages”

Uniloc does not propose constructions for these terms. Google’s construction is necessary because it makes clear that the recited first and second applications are each computer programs and are different from each other – points that Uniloc concedes. *See O2 Micro*, 521 F.3d at 1362–1363; *see also* Ex. K at 56–57; Ex. L at 12; Ex. O at 23; Ex. Q at 24–25; Ex. R at 31 (each defining “application” as a “program”); Dkt. 134 at 27 (“The claims recite a ‘first application’ and a ‘second application’ which implies that there are two different applications.”).

V. CONCLUSION

Google respectfully requests that the Court construe the disputed claim terms in the manner detailed above.

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Respectfully submitted,

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